

## DOCUMENTATION PAGE

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DECLASSIFICATION/DOWNGRADING SCHEDULE

4. PERFORMING ORGANIZATION REPORT NUMBER(S)

DOD POP HMTR/AYD 91-016

6a. NAME OF PERFORMING ORGANIZATION

Packaging Division, AED

6b. OFFICE SYMBOL  
(If applicable)

SMCAR-AEP

6c. ADDRESS (City, State, and ZIP Code)

U.S. Army, ARDEC  
Picatinny Arsenal, NJ 07806-50008a. NAME OF FUNDING/SPONSORING  
ORGANIZATION8b. OFFICE SYMBOL  
(If applicable)

8c. ADDRESS (City, State, and ZIP Code)

1b. RESTRICTIVE MARKINGS

3. DISTRIBUTION/AVAILABILITY OF REPORT

Unlimited

5. MONITORING ORGANIZATION REPORT NUMBER(S)

7a. NAME OF MONITORING ORGANIZATION

7b. ADDRESS (City, State, and ZIP Code)

9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

10. SOURCE OF FUNDING NUMBERS

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ELEMENT NO.PROJECT  
NO.TASK  
NO.WORK UNIT  
ACCESSION NO.

11. TITLE (Include Security Classification)

Performance Oriented Packaging Report for Mine, Apers, M16A1  
or M16A2

12. PERSONAL AUTHOR(S)

Spiozek, Frank

13a. TYPE OF REPORT

Final

13b. TIME COVERED

FROM \_\_\_\_\_ TO \_\_\_\_\_

14. DATE OF REPORT (Year, Month, Day)

91-08-16

15. PAGE COUNT

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16. SUPPLEMENTARY NOTATION

17. COSATI CODES

FIELD

GROUP

SUB-GROUP

18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)

Performance Oriented Packaging, POP, Mine,  
Apers, M16A1 or M16A2, Mil-B-46506,  
Wirebound box

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This POP report is for the Mine, Apers, M16A1 or M16A2, which is packaged 4 mines/Mil-B-46506 wirebound box. This report describes the results of testing conducted on a similar packaging which is used as an analogy for this item.

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20. DISTRIBUTION/AVAILABILITY OF ABSTRACT

☐ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS

21. ABSTRACT SECURITY CLASSIFICATION

Unclassified

22a. NAME OF RESPONSIBLE INDIVIDUAL

Steve Ruffini

22b. TELEPHONE (Include Area Code)

201-724-2515

22c. OFFICE SYMBOL

SMCAR-AEP

I. REPORT NUMBER: DOD POP HMTR/AYD 91-016

II. TITLE: Performance Oriented Packaging Report for Mine, Apers,  
M16A1 or M16A2

AUTHOR: Frank M. Snizek

PERFORMING ACTIVITY: ARDEC

ADDRESS: Department of the Army  
ARDEC, SMCAR-AEP  
HQ, U.S. Army Armament, Munitions, and Chemical Command  
Picatinny Arsenal, NJ 07806-5000

DATE: 20 August 91

Approved for public release; Distribution is unlimited



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A-1	

## 1. DATA SHEET

### CONTAINER

Type: Box

UN Code: 4C1

Nomenclature: Box, Wirebound, Packing, Ammunition, for Mine, Apers, M16A1 or M16A2 (With Fuze, Mine, Combination, M605)

Specification Number: Mil-B-46506

Drawing Number: 7548179

Material: Wood and wire

Gross Weight: 39.0 pounds

Outside Dimensions: 15 3/8 in. x 9 13/16 in. x 8 9/32 in.

Inside Dimensions: 13 in. x 8 3/4 in. x 6 5/8 in.

### PRODUCT

Name: Mine, Apers, M16A1 or M16A2

Drawing Number: 8796365

United Nations Number: 0321

Physical State: Solid

Amount per Container: 4

## 2. BACKGROUND, TESTS, AND RESULTS

Reference the following documents:

- a. United Nations Transport of Dangerous Goods, Sixth Edition
- b. Federal Register dated December 21, 1990
- c. Federal Register Notice dated February 21, 1991

Instead of testing the specific container used for the M16A1 or M16A2 Apers Mine, wirebound boxes built to the same specification, but with the following weight and dimensions were tested.

Gross Weight: 87 lb.

Inside Dimensions: 13 x 10 7/16 x 6 15/16

This falls within the guidelines for analogy IAW Variation III of Reference 2c.

A Stacking Test was conducted on 3 containers with a weight of 2500 pounds for 24 hours. This weight exceeds the minimum requirement of a weight equivalent to a 10 foot stack height which is 1314 pounds.

A Loose Cargo Test was conducted IAW with the Federal Register on the same 3 containers. The packages were tested at a vibration table frequency such that the bottom of the packages was raised 1/2 inch from the platform, which exceeds the requirement of 1/16 inch.

A Four Foot Drop Test was conducted on one of the containers that was subjected to the Loose Cargo Test. One container was dropped five times at different orientations as follows: top, bottom, long side, short side, and a top corner at the closure. This exceeds the requirement of one drop per container.

Test results indicate that there was no leakage or spillage of the containers following any of the tests conducted, and as such, meets the requirements of the Federal Register and The United Nations Transport of Dangerous Goods.